SECTION 11.0 - RESPONSE TO COMMENTS

11.0 RESPONSE TO COMMENTS

This section of the DEIR provides individual responses to the public and agency comments received on the Environmental Notification Form (ENF) for the New Bedford/Fairhaven Harbor DMMP. In this section, each comment letter is addressed in a specific subsection, with individual comments listed, followed by a response to the comment. Letters are addressed in the order in which they are listed in the MEPA ENF Certificate of June 30, 1998.

Comments are presented in italicized text for ease in distinguishing between comments and responses. Where appropriate, the response may direct the commentator to the specific sections of the DEIR where the comments are answered. The Certificate of the Secretary of Environmental Affairs is included in the front matter of this report, copies of the original comment letters are included in Appendix A.

11.1 Certificate of the Secretary of Environmental Affairs on the Environmental Notification Form

Comment: *Project Description, Purpose and Need*

The EIR should contain a full description of the project that includes a description of the purpose and need for the DMMP in New Bedford/Fairhaven Harbor.

Response: A full description of the New Bedford/Fairhaven Harbor DMMP is included in Section 1.0, Executive Summary. Purpose and Need for the project is described in Section 3.0.

Comment: *Sediment Quality and Quantity - The EIR should contain an analysis of the quality and quantity of dredged material for DMMP dredging projects in New Bedford/Fairhaven Harbor. It should summarize dredge sampling and testing programs and discuss conformance with DEP and Army Corps/EPA requirements, including physical, bulk chemistry and any required biological testing. The EIR should also identify low, medium and high volume dredge volume estimates in consultation with New Bedford Working Group and Harbor Plan Committee. For overdredge and adjacent to channel aquatic disposal alternatives, it should provide a summary of results of subsurface investigations.*

Response: Section 3.3 includes a complete discussion of the quality and quantity of the dredged material for the New Bedford/Fairhaven DMMP. Please note that the DEIR analysis assumes conservative UDM volume estimates, roughly corresponding to the "high volume" dredging estimates included in the ENF. This approach has been taken to ensure that disposal site planning considers the maximum volume of UDM that may need to be disposed. Future chemical and biological, if required, analyses of individual dredging projects will pinpoint the capacity required for the final disposal sites or alternative treatment technology.

Comment: *Identification of Disposal Alternatives - The EIR should identify the full range of practicable disposal alternatives considered under all DMMP Phases, including:*

a. Alternative Technologies and Methodologies

Identify potential alternative technologies, and discuss operational requirements, regulatory feasibility, and characteristics of output and sidestream flows and associated environmental impacts. Based on these factors, identify potentially practicable technologies.

b. Upland Reuse/Disposal

Identify potential upland alternatives within the municipal boundaries of New Bedford, consistent with existing DEP regulations and policy. Also consider the use of brownfield sites consistent with DEP policy and the Massachusetts Contingency Plan.

c. Aquatic Disposal

Identify all potential aquatic disposal alternatives as defined under DMMP Phase I within the New Bedford Zone of Siting Feasibility, consistent with Army Corps operational policies and Clean Water Act, Section 404 provisions.

Response:

a. Alternative Technologies and Methodologies: Section 4.5 summarizes the alternative treatment technologies and methodologies analyzed for practicability in the DMMP.

b. Upland Reuse/Disposal: Section 4.7 summarizes the Upland Reuse and Disposal Alternatives analyzed for the New Bedford/Fairhaven DMMP.

c. Aquatic Disposal: Section 4.8 summarizes the Aquatic Disposal Alternatives analyzed for the New Bedford/Fairhaven DMMP.

Comment: *Screening of Disposal Alternatives - Perform a first order screen of disposal alternatives for impacts to natural resources, permitting feasibility, engineering characteristics, capacity, cost, logistics, and users conflicts, based on existing information. Screening criteria used in the analysis should be developed in consultation with local interests and state and federal resource agencies. Identify potentially practicable alternatives resulting from the screening.*

Response: Sections 2.0 and 4.4 of the DEIR describe the coordinated development of the DMMP screening criteria with local interests, state and federal regulatory agencies and the specifics of the DMMP screening process. Sections 4.5, 4.6, 4.7 and 4.8 of the DEIR provide a summary of the first order screen for each type of disposal alternative considered, including the identification of potentially practicable alternatives resulting from the screening.

Comment: *Fisheries Investigation and Monitoring - The proposed fisheries studies are intended to fill information voids relative to the present status of marine resources in specific areas so that the potential impacts from dredging and in-water disposal can be determined. These studies will complement other resource investigations either currently underway or recently completed..*

The important marine fisheries resources in New Bedford/Fairhaven Harbor are shellfish, lobster, and finfish. The Division of Marine Fisheries (DMF) will provide direction for the required studies on these resources. Juvenile lobster and shellfish surveys shall be site specific and shall be conducted at the areas identified within each study site, subject to final direction from DMF and MCZM.

Response: Section 4.8 of the DEIR provides a detailed screening of aquatic disposal alternatives which include an assessment of benthic impacts in Section 4.8.3 and finfish impacts in Section 4.8.4. Section 6.1.3 provides a detailed assessment of impacts to benthic species, while Section 6.1.4 provides a detailed assessment of impacts to finfish for aquatic disposal alternatives. Additionally, the DMMP final report of the *Fisheries Resources Survey* for New Bedford is included in Appendix G.

Comment: *Analyze the effects of disposal activities on shore birds and the impacts of these activities on shore bird habitat. Additionally, provide the results of a cultural and historical/archaeological investigation to identify any resources that might be affected by disposal options. I suggest consultation with the Board of Underwater Archaeology and the Massachusetts Historical Commission in preparing this information.*

Response: The effects of disposal activities on shorebirds and associated habitat is described in Sections 5.3.5.1 and 6.5.1. The results of the cultural and historical/archaeological investigation are described in Section 5.3.6 and Section 6.6. Additionally, Appendix I includes the report *Possible Shipwreck and Aboriginal Sites on Submerged Land - New Bedford, Massachusetts*. On-going coordination with BUAR and MHC is described in Section 2.5.3 and correspondence is included in Appendix A.

Comment: *Characterize identified potentially practicable sites in terms of: engineering, physical, chemical, and meteorological characteristics; quantify natural resource impacts; identify permitting requirements; cost; capacity; and operational requirements, based on site specific conditions.*

Response: Sections 5.0 and 6.0 of this DEIR provides engineering, physical, chemical, and meteorological characteristics and quantification of natural resource impacts for potentially practicable site and the preferred alternative sites. Appendix F contains the Habitat Characterization study that served as the baseline for the analysis of the above sections.

Comment: *Identify, in consultation with New Bedford officials and other interested organizations and individuals, a preferred alternative(s)and/or methodology(s). Identify mitigation requirements and identify the parties responsible for implementation of mitigation measures.*

Response: The disposal site screening process has been closely coordinated with City of New Bedford, Town of Fairhaven and other key harbor stakeholders, as described in Section 2.0 of this DEIR. The Draft Section 61 Findings, Sections 8.0 and 10.0, identify mitigation requirements specific to the aquatic preferred alternative sites.

***Comment**: Disposal Site Management Plan - The EIR should contain a draft disposal site management plan detailing measures to be taken to ensure protection of the public health and welfare and to properly manage the construction and operation of the preferred disposal alternative. It should also identify parties responsible for implementation of the plan.*

Response: The Disposal Site Management Plan, detailing measures to be taken to ensure protection of the public health and welfare and to properly manage the construction and operation of the preferred disposal alternative sites, is included as Section 9.0 of this DEIR. This section also identifies potential parties responsible for implementation of the DMMP in New Bedford/Fairhaven Harbor.

***Comment**: Draft Section 61 Findings - The EIR should contain a draft Section 61 Finding for the preferred alternative. This finding should set out what mitigation is available to minimize or eliminate environmental impacts.*

Response: Section 10.0 of this DEIR includes the Draft Section 61 Findings outlining mitigation available to minimize or eliminate environmental impacts in New Bedford/Fairhaven Harbor associated with UDM disposal.

***Comment**: Federal permitting requirements - The EIR should contain, as appropriate, the draft federal Endangered Species Act Section 7 consultation and draft Clean Water Act Section 404(b)(1) analysis.*

Response: Section 7.2.1 includes a draft Clean Water Act Section 404(b)(1) analysis for the preferred aquatic disposal sites in Salem Harbor. As the preferred aquatic disposal sites are located outside of any federally-listed Endangered Species habitat areas, a draft ESA Section 7 consultation is not included in this DEIR. Consultation and coordination with the NMFS and the USFWS is continuing to determine the need for a formal Section 7 consultation process. Correspondence with NMFS and USFWS are included in Appendix B.

11.2 Department of Environmental Protection

***Comment:** DEP experiences with CA/T materials (both excavate and dredged sediments) have demonstrated that even though there initially appeared to be a fairly large demand for these materials at public (or private) landfills, the reality was that very few landfills actually decided to use the materials. In addition, by 1999 most unlined landfills in Massachusetts will be capped, the exception being a category of historic landfill disposal sites, most of which have been unused for over 30 years, and the potential for placement of significant volumes of dredged sediments at any of these sites is questionable and severely limited at best. Nevertheless, the DMMP should fully assess any and all historic landfills and DEP will work with the consultant in this activity.*

The New Bedford ENF specifically refers to an existing 12-acre municipal solid waste landfill in New Bedford (Shawmut Ave.) As the ENF correctly states, the facility is partially closed and capped. On July 22, 1997, the City of New Bedford and DEP entered into a Consent Order for final assessment and capping/closure of the Shawmut Ave Landfill. The Consent Order includes the following provisions:

- *By December 31, 1998, the Municipality shall cease accepting solid waste at the Landfill.*
- *By June 1, 1999, the Municipality shall award a contract for final capping of the Landfill.*
- *By November 1, 1999, the Municipality shall complete capping of the Landfill. The municipality shall submit a Landfill closure certification report within 60 days of the completion of the construction of the final cover.*

Based on the above, this facility will <u>not</u> be available for receipt of any contaminated or non-contaminated sediments from the DMMP and therefore should be removed from consideration for sediment reuse/disposal.

Response: CZM has worked in consultation with DEP on the inclusion and assessment of historic landfills within 50 miles of New Bedford/Fairhaven Harbor in screening of upland disposal sites. This analysis is described in detail in Section 4.8. The screening of the universes of potential upland disposal sites, of over 1,000 sites, failed to identify a practicable upland option, including the Shawmut Avenue Landfill.

Comment: *The DMMP estimates a total volume of up to 400,000 and 2,000,000 cubic yards of dredged material unsuitable for unconfined ocean disposal for the ports of Fall River and New Bedford, respectively. This estimate includes all anticipated dredging projects; private, federal, state and municipal, consistent with the anticipated future port and land use. DEP fully supports the conclusion in the Phase I DMMP that this large volume and physical/chemical quality of dredged material drives an informed alternatives analysis; one that must carefully review all possible mechanisms for both in-water and upland disposal/reuse.*

Response: This comment is acknowledged. The DMMP disposal site screening analysis involved a comprehensive analysis of all practicable alternative treatment technologies, upland and aquatic disposal options, including a detailed review of potential dewatering sites, a key mechanism to implementing upland and alternative treatment technology disposal options. Section 4.4 provides a detailed description of the alternatives analysis process conducted for the New Bedford/Fairhaven DMMP.

Comment: *<u>Upland Disposal/Reuse at Locations Subject to Jurisdiction of M.G.L. c, 21E and the Massachusetts Contingency Plan, 310 CMR 40.0000 et. seq.</u>*

Section III. E. 3. of the ENF at page 7 states that, if upland disposal is selected, ... the use of already despoiled areas, such as "brownfield" sites would be preferable. Potentially contaminated areas of an otherwise suitable brownfield site will be identified via the Environmental Site Assessment Process under M.G.L. c. 21E and the Massachusetts Contingency Plan (310 CMR 40.0000).

Response: Since the preferred disposal alternatives proposed in the DEIR for New Bedford/Fairhaven

Harbor are in the marine environment, the proposed sites are not subject to provisions Chapter 21E and the MCP.

Comment: *The ENF description is problematic in its use of language; specifically the terms "despoiled areas" and "brownfields" and in the assumptions made about the substantive authority and jurisdiction of c. 21E and the MCP.*

In Massachusetts, "brownfields" are not automatically synonymous with "despoiled areas". Neither M.G.L. c. 21E nor the MCP defines "brownfields". While "despoiled areas" have been identified in several state statutes, excluding c. 21E, these descriptions have been provided to define locations in need of social, economic and infrastructure redevelopment, not to identify, as a primary focus, locations that may have been subject to contamination by oil or hazardous material.

DEP agrees that if upland disposal, outside of the locations that have undergone the site assignment process required for the management of solid/hazardous waste, is necessary, it is preferable to select locations that have already been subject to contamination over "pristine" locations. However as described in this section of the ENF, that would not be the automatic result.

Assuming that non-pristine locations were identified, and proved to be suitable for redevelopment, which is what the common understanding of a "brownfield" is , such areas would not easily lend themselves to disposal of dredged sediments.

Chapter 21E and the MCP have jurisdiction over releases and threats of release of oil or hazardous materials where such releases have come to be located. This does not necessarily encompass all locations that have been subject to prior contamination, but only those subject to notification under c. 21E § 7as the result of a release in the concentration or quantity prescribed by the MCP. The reference in the ENF to the "Environmental Site Assessment Process" appears to envision (1) a much broader knowledge of locations that may be subject to contamination and (2) broader scope of jurisdiction than what is prescribed by the statute .

DEP wishes to again emphasize that the process for assessment, containment and removal of oil or hazardous material at locations where release(s) have come to be located; that is 21E sites; is complex, may require years of careful oversight, and is not necessarily applicable to the use and management of dredged sediments, particularly the volumes described by the ENF.

Finally, DEP feels it imperative to point out that the cleanup of 21E sites is managed and achieved through a privatized program. The vast majority of 21E cleanups are performed by Licensed Site Professionals employed by the persons undertaking site remediation. Except for a relatively small category of sites, DEP's involvement in remediation decisions about the management, treatment alternatives, cleanup levels and future site activities and uses is limited.

Response: The above comments are acknowledged and has been incorporated into the analysis for sites that could impact the upland environment including alternative treatment technologies, dewatering sites and upland disposal and reuse.

Comment: *Project Permitting - The ENF correctly indicates the various potential major DEP Permits that might be necessary to implement the construction and operation of dredged sediment reuse/disposal facilities. Depending on the alternative(s) finally chosen additional DEP permits (or technical reviews) may be required under the jurisdiction of c.111 s.150A and 310 CMR 16.000 and 19.000 (Solid Waste Review); c.21E/MCP at 310 CMR 40.000; 310 CMR 7.00 (Air Plans Review); and c.131, s.40 (Wetlands Protection Act) if a Superseding order or Variance is deemed to be necessary.*

As MEPA is aware, the Commonwealth and EPA are currently in the final stages of revising a Record of Decision (ROD) for disposal of PCB contaminated sediments from the New Bedford Harbor Superfund Project under CERCLA, 42 U.S.C. § 9601 Et seq. and the National Contingency Plan, 40 CFR Part 300. Prior to and during the Phase I DPA/DMMP, staff from DEP and other relevant federal state and local agencies assessed and considered the option of formally performing the New Bedford ROD, which provides for an enhanced remedy and the DPA/DMMP Project, as a single consolidated site cleanup and navigation improvement action. Such a process could provide significant procedural and technical advantages, including reducing the procedural requirements to the requirements prescribed for the issuance of an concurrence with a ROD, while maintaining the substantive requirements, and coordinating the sequencing of the dredging work. This coordination will, in particular, be a critical component to successful and protective hot spot collection/containment.

Response: CZM acknowledges the above comments and recognizes the benefits of coordinating with ROD efforts where practicable.

Comment: *Procedurally, if the DMMP moves forward as an independent project, the management and disposal requirements prescribed by the federal Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605 et. seq. and the implementing regulations promulgated thereunder at 40 CFR Parts 750 and 761, will apply, in that much of the dredged material will be found to be contaminated with PCBs > 50 mg/Kg. These requirements will be incorporated through any §404 permit and, even in light of the effort to streamline the management and disposal of TSCA remediation waste, which includes dredged sediments, are onerous; very time consuming, very costly, and procedurally difficult, adding potentially 1 to 2 years to the overall time line. Inclusion of the DMMP in the Final ROD, with which as of now, the state plans to concur, would eliminate the substantive and procedural requirements of TSCA would otherwise impose upon the project. Therefore the option of implementing through the ROD should be very carefully considered.*

Response: CZM has participated in "linkage" meetings with federal, state and local entities to investigate ways to integrate the implementation of the DMMP with the ROD, and will continue to participate in pursuance of "linkage" opportunities as practicable. Ongoing coordination with federal, state and local agencies is described in Section 2.0 of this DEIR.

Comment: *Waterways Permitting - The project will require a Chapter 91 dredge permit. If the Confined Disposal Facility (CDF)or the Tidal Habitat Creation option is chosen, a Chapter 91 license will be necessary. Chapter 91 licenses require the payment of Commonwealth tidelands occupation fees at $30/sq.yd. and tidewater displacement fees at $2.00/cu.yd. These costs may*

become quite prohibitive for large amounts of fill. Public agencies however are exempt from these licensing fees. So if one of these options is chosen, a public agency should be the permittee. A further requirement of the Waterways regulations at 310 CMR 9.32 (1)(b), is that within DPAs, a project shall be eligible for a license only if it is restricted to fill or structures for water-dependent-industrial use, provided that, in the case of proposed fill, neither pile-supported nor floating structures are a reasonable alternative. The EIR should address how this requirement will be met.

The Ten Mile River and Islands and Buzzards Bay Watershed Basin Teams indicate that both the Confined Disposal Facilities and Confined Aquatic Disposal can be authorized by the Chapter 91 program , with the following restrictions:

- *In general, Confined Disposal Facilities (CDF) within the DPA, pursuant to 9.36 (5) shall not include fill or structures for non-water dependant projects or water dependant non-industrial uses which preempt water dependant industrial use within the DPA. Shore protection structures (i.e bulkheading) should protect, construct or expand water-dependant industrial uses*

- *All future uses of any of the CDFs within the DPA require Chapter 91 review and approval.*

- *Once Confined Aquatic Disposal Facilities (CADs) are capped, the depth shall not impede safe navigation and measures shall be taken to indicate their location on navigation charts.*

The Environmental Impact Report(EIR) should indicate dredged depths and profiles of the areas to be dredged and all areas to be used as CDF and CAD sites should be designated, prioritized by site use and volume.

Response: Section 7.1.3 of the New Bedford/Fairhaven DMMP describes how the requirements of Chapter 91 for the preferred CDF disposal option identified will be met. Section 8.0 provides the conceptual engineering specifications for the CAD and CDF preferred alternatives. For the purposes of the DMMP, the assumed end use for the Popes Island North CDF is marine industrial, as proposed in the New Bedford/Fairhaven Harbor Plan. The design of CAD cells in the DMMP maintain ambient elevations to avoid long-term navigational impacts.

Comment: *Wetlands Permitting - There is not yet enough information on the Wetland Resource Areas likely to be impacted by these projects to determine what the requirements under the Wetlands regulations will be. For each of the alternatives under consideration, the EIR should address the following: which Wetlands Resource Areas will be impacted, the square footage of impact, whether the impact is temporary or permanent, whether the project will require a variance, or whether it can be considered a Limited Project under the Wetlands Regulations.*

Response: Sections 5.3.4 and 6.1.5 quantify the amount and type of wetland resource areas, and the duration of the impact, for all wetland resources which are potentially impacted.

Comment: *Solid Waste Permitting*

Reuse and disposal of dredged sediments at solid waste facilities are regulated under Solid Waste Management regulations 310 CMR 19.000. Refer to #COMM-94-007 Interim Policy of Sampling, Analysis, Handling , and Tracking Requirements for Dredged Sediments Reused or Disposed at Massachusetts Permitted Landfills

Dredged sediments may be disposed or reused at permitted landfills according to the above policy. The policy also provides guidance for sampling, handling, and tracking of dredged materials, as well as landfill operational controls.

Sediments intended to be reused at lined landfills and which have no contaminants exceeding the limits indicated in Table 1 of the policy will not require individual approval from the Department.

Sediments will require approval from Solid Waste management if:

- *they exceed table 1 contamination limits*
- *they are intended to de disposal sat lined or unlined landfills; or*
- *they are intended to be reused at an unlined landfill*

Most unlined landfills in Massachusetts will be capped and closed by December 1999. Thus the reduced number of active landfills in the region will limit land fill disposal options for the dredged sediments. Lined landfills in the region that will remain open beyond the December 1999, deadline are Taunton, Fall River and Bourne which may accept dredged sediments at the discretion of the operator.

Sediments shall not be disposed of at landfills if a feasible alternative exists that involves the reuse, recycling, destruction, and/or detoxification of such sediments in accordance with the solid waste management hierarchy established in the Solid Waste Master Plan. The applicant must fully assess the feasibility of alternatives to sediment disposal at a landfill.

In certain cases a Beneficial Use Determination permit may be appropriate if it can be demonstrated that the dredged material can be beneficially reused in an environmentally safe manner.

Response: The comprehensive alternatives analysis conducted for the New Bedford/Fairhaven DMMP did not identify an upland disposal option as practicable alternative. The details of the upland site screening process are highlighted in Section 4.7.

Chapter 21E Sites

Based on the location of information provided in the ENF, the Bureau of Waste Site Cleanup (BWSC) has searched its database for disposal sites and release notifications has found that there are numerous known sites or disposal sites or reportable release located within the New Bedford Harbor Area. Additionally, the Commonwealth Gas Company (Release Tracking Number 4-12592) has a disposal site located at 180 MacArthur Drive in the exact vicinity of the proposed project.

This site has released gas wastes subject to the jurisdiction of c.21E and the MCP into the sediments and to the full extent of the contamination is not known. The Project Proponent is advised that, if additional oil and/or hazardous material is identified during the implementation of this project , the BWSC must be notified pursuant to 310 CMR 40.0300, a Licensed Site Professional must be retained pursuant to 310 CMR 40.0000, and risk reduction measures may have to be undertaken pursuant to 310 CMR 40.0400, as appropriate. In addition, the BWSC may be contacted for guidance if questions arise.

Response: The proposed CDF disposal site in the vicinity of 180 MacArthur Street, State Pier CDF, was not elevated to a preferred alternative during the aquatic site screening process. The description of the aquatic site screening process is described in Section 4.8, including the rationale for State Pier CDF's status a reserve site.

11.3 Letter of the City of New Bedford and Town of Fairhaven

Comment: *It is our opinion, however, that some proposed disposal locations should be immediately be removed from any further consideration. These locations, as listed on Attachment 1-E of the ENF, are:*

> *North 195: This site was put forward as an option for disposal of Superfund material and was met with great opposition form area residents. Therefore EPA decided not to site a disposal facility at this location.*
>
> *State Pier: The City of New Bedford and the Department of Environmental Management are working on major capital improvements plans for piers and wharves in this area. Furthermore this area provides docking space for 80% of the City's fishing fleet.*
>
> *Seawall West: The City of New Bedford City Council has voted to oppose the disposal of contaminated sediments in the area of the Standard Times Field. There is a possibility that a modified disposal site that may be desired would allow for expanded use of Palmer's Island.*
>
> *Fairhaven South and Fairhaven North: Siting of a disposal facility in either of these locations would displace businesses and severely reduce the property values of existing homes abutting Fort Street and the existing nature of these areas. There are also numerous existing and potential boat docking facilities and moorings in these locations.*
>
> *Popes Island South: Disposal of contaminated materials at this site would completely eliminate a 198-slip recreational boating marina that was constructed there by the Commonwealth of Massachusetts in 1993.*

For the above stated reasons, each of these sites, as proposed, would be unacceptable for dredged material disposal, and we strongly urge that they be eliminated from further consideration.

Response: All of the sites mentioned above, North 195, State Pier, Seawall West, Fairhaven South, Fairhaven North and Popes Island South have not been proposed as preferred disposal alternatives in the New Bedford/Fairhaven Harbor DMMP. The screening process for the aquatic disposal alternatives is described in detail in Section 4.8.

Comment: *Furthermore, there is another location within the Zone of Siting Feasibility for this project which we feel should be considered as a potential disposal site (either CAD or CDF). This area is located immediately south of the hurricane barrier, on the western side of the harbor, and is marked on the ZSF map attached to this letter.*

Response: A CDF site, Seawall Southwest, was added to the universe of aquatic sites investigated in the alternatives analysis. This site did not pass the aquatic disposal site screening to become a preferred alternative. The details of the aquatic site screening process are described in Section 4.8.

Comment: *We would also like to go on record in opposition to the no action alternative, which would result in no maintenance or navigational dredging of the New Bedford/Fairhaven Harbor. The economic revitalization of this area relies heavily on the ability of shipping vessels to utilize this Harbor, and lack of dredging over the past few decades has resulted in very adverse impacts on this region.*

Response: The New Bedford/Fairhaven DMMP puts forward two preferred aquatic disposal alternatives, none of which is the No Action Alternative. In fact the No Action alternative helps justify the need for implementing the preferred alternatives.

Comment: *Finally, we have appointed a Dredged material Management Committee (DMMC), which will be responsible for reviewing all project related materials, holding public informational sessions, and communicating with the DMMP consultant team and the Harbor Master Planning Committee...*

Response: Development of the New Bedford/Fairhaven DMMP has been coordinated with the DMMC at key milestones, Section 2.0 describes the DMMC's involvement in the planning process.

11.4 Board of Underwater Archaeological Resources

Comment: *The BUAR conducted a very preliminary review of its files and secondary literature sources to identify known and potential submerged cultural resources. Research strongly suggests there exists the possibility for both prehistoric and historic cultural resources, now submerged, to be located within the vicinity of New Bedford Inner and Outer Harbor areas, and the upper Buzzards Bay between Dartmouth and Fairhaven. This preliminary review revealed potential submerged cultural resource (e.g., shipwrecks) in the vicinity of the New Bedford Harbor area.*

Given the geomorphological evolution of the northern shore of Buzzards Bay and New Bedford Harbor as a possible inundation feature (limited seaward exposure reducing erosional effects), there exists the strong possibility for the preservation of now submerged prehistoric cultural resources. A regional model for the southern Gulf of Maine suggests the expected site frequency for the study

area would be low for all site types dating prior to 6000 BP, but would increase from low (habitation) to high (shell middens) for the period 6000 to 3000 BP. In the period from 3000 BP to Present, the expected site frequency increases to high for habitation, camp, and shell midden sites. During both periods, the size of these sites would be small. While this model does not provide sufficient resolution to specifically identify potential site locations at the scale of the study area, it points to the need to consider the occurrence of prehistoric sites.

A preliminary review of historic literature strongly suggests there exists some reasonable concern for possible historical site occurrence within the New Bedford Harbor areas. In general, we must recognize New Bedford was a major early colonial port in the region and maintained commercial and fishing importance throughout the historic period, and thus maintained a high volume of vessel traffic along the Bay. Additionally, the numerous coves along the shore provided small safe harbors and quays to support both fisheries and manufacturing activities. At the same time, we must recognize that the northern shore of Buzzards Bay, like Cape Cod, was a major natural landscape feature that contained numerous hazards to navigation, and thus became the site of shipwrecks. A variety of maritime related cultural resources, such as wharves/piers/quays, anchorages, careening sites, derelict and shipwreck vessels, might be anticipated to be located in the project area, either submerged or along the shore.

While the vast majority of known shipwrecks are described as occurring in Buzzards Bay, a number of shipwrecks are known to have occurred in the immediate vicinity of New Bedford Harbor; many dating into the nineteenth century. Further, secondary sources indicate that as many as sixty shipwrecks might be located in the vicinity of Buzzards Bay. The loss of earlier and smaller coastal vessels and the purposeful abandonment of derelict vessels are generally not found in the documentary record. The level and diversity of maritime commercial, fishing, and recreational activities throughout the Buzzards Bay region may have resulted in the creation of a number of undocumented and anonymous underwater archaeological sites such as small craft, derelict vessels, or dump sites. An excellent example of this type of activity/historic site is the abandoned fishing trawler EVELINA M. GOULARD removed from the Fairhaven waterfront in 1990. The GOULARD is now on display as an historic vessel at the Essex Shipbuilding Museum. These possible site types represent classes of vessels where our knowledge is severely limited and, thus, are potentially historically and archaeologically important.

Therefore, the BUAR takes this opportunity to express its concern that heretofore unknown cultural resources might be encountered during the course of work and hopes the project's sponsor will take steps to limit adverse affects and notify the BUAR, as well as other appropriate agencies, if historical or archaeological resources are encountered.

Response: This DEIR presents the results of an initial (Phase I) underwater archaeological investigation for New Bedford/Fairhaven Harbor. We concur the waters of New Bedford/Fairhaven Harbor, near the locations of the preferred aquatic disposal alternative sites, are likely to contain several potentially significant archaeological sites. As noted above, CZM will coordinate with both the BUAR and MHC to define the appropriate further investigations and identification of mitigation and avoidance measures as the DMMP site selection and disposal site design process proceeds.

11.5 Letter of Massachusetts Historical Commission

Comment: *The City of New Bedford and the Town of Fairhaven contain known archaeological sites which are recorded in MHC's Inventory of Historic and Archaeological Resources of the Commonwealth. The majority of land in these communities as well as the bottom of the harbor has never been systematically surveyed for archaeological resources. Additional as yet unidentified sites may also be present both on land and underwater in the Harbor area.*

Response: We concur the waters of New Bedford/Fairhaven Harbor, near the locations of the preferred aquatic disposal alternative sites, are likely to contain several potentially significant archaeological sites. As noted above, CZM will coordinate with both the BUAR and MHC to define the appropriate further investigations and identification of mitigation and avoidance measures as the DMMP site selection and disposal site design process proceeds.

Comment: *Given the archaeological sensitivity of the New Bedford/Fairhaven Harbor area and the proposed project impacts, MHC requests that a reconnaissance archaeological survey (950 CMR 70) be conducted for the candidate aquatic disposal locations identified in the ENF (Attachment 1-E). The goal of the reconnaissance survey and recommends that the scope be developed in consultation with the Massachusetts Board of Underwater Archaeological Resources.*

Response: This DEIR presents the results of an initial (Phase I) underwater archaeological investigation, developed in consultation with MBUAR, for New Bedford/Fairhaven Harbor DMMP in Sections 5.3.6 and 6.6. Appendix I contains the report *Possible Shipwreck and Aboriginal Sites on Submerged Land - New Bedford, Massachusetts.*